



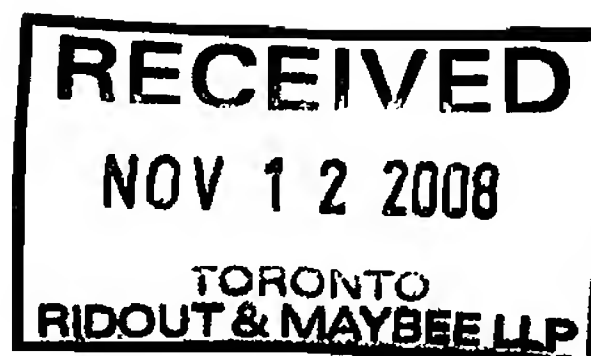
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RIDOUT & MAYBEE LLP
225 King Street West
10TH Floor
TORONTO Ontario
M5V 3M2



November 4, 2008

Application No. : **2,553,344**
Owner : NISSHIN STEEL CO., LTD.
Title : **ROCKBOLTS MADE OF HIGH-STRENGTH STEEL PIPES AND METHOD OF MANUFACTURING THEREOF**
Classification : E21D 20/00 (2006.01)
Your File No. : **34017-0026** 16152-0004
Examiner : Patrick Cyr

YOU ARE HEREBY NOTIFIED OF :

- A REQUISITION BY THE EXAMINER IN ACCORDANCE WITH SUBSECTION 30(2) OF THE *PATENT RULES*;
- A REQUISITION BY THE EXAMINER IN ACCORDANCE WITH SECTION 29 OF THE *PATENT RULES*.

IN ORDER TO AVOID **MULTIPLE ABANDONMENTS** UNDER PARAGRAPH 73(1)(A) OF THE *PATENT ACT*, A WRITTEN REPLY TO EACH REQUISITION MUST BE RECEIVED WITHIN **6 MONTHS** AFTER THE ABOVE DATE.

This application has been examined taking into account the:

Description, pages 1-18, as originally filed;
Claims, 1-4, as originally filed; and
Drawings, pages 1/5-5/5, as originally filed.

The number of claims in this application is 4.

The examiner has identified the following defects in the application:

The search of the prior art has revealed the following:

References Applied:

Canadian Patents

1,233,037
2,368,506

23 February 1988
7 September 2001

Romell at al.
Sugimaru et al.

Canada



Romell et al. disclose A tube-formed rock bolt which is partly circular in its cross-section and opposite its circular portion it has a deep depression. Its ends are sealed and its outer end has a hole or a fitting through which the bolt can be supplied with high pressure water that expands the tube to anchor it in the borehole.

Sugimaru et al. disclose a Zn coated steel material, a Zn coated steel sheet and a painted steel sheet excellent in corrosion resistance, and a method of producing the same. Specifically, there is provided coated steel material excellent in corrosion resistance and a method of producing the same, which coated steel material is characterized in that it has, on the surface of steel sheet, a Zn-alloy coating layer containing more than 2 - 10 wt% of Mg, 4 - 19 wt% of Al and 0.01 - 2 wt% of Si, where Mg and Al satisfy $Mg(\%) + Al(\%) \leq 20\%$, the balance being composed of Zn and unavoidable impurities, and has a coating layer structure of a Mg intermetallic compound or the like.

Claims 1, 3 and 4 do not comply with section 28.3 of the *Patent Act*. The subject matter of these claims would have been obvious on the claim date to a person skilled in the art or science to which they pertain having regard to Romell et al. in view of common general knowledge.

Romell et al. teach a high-strength steel pipe rockbolt comprising an expansive rockbolt main body (11) made from a shaped pipe having one or more concavities (16,17) extending along an axial direction. The rockbolt also having sleeves (19,20) at both ends with one end having a pressure fluid inlet (24).

Although Romell et al. fail to specifically teach the rockbolt having a thickness of 1.8-2.3mm, a tensile strength of 490-640 N/mm² and an elongation of 20% or more, these parameters are appropriate rockbolt design choices that would have been obvious to a person skilled in the art.

Claim 2 does not comply with section 28.3 of the *Patent Act*. The subject matter of this claim would have been obvious on the claim date to a person skilled in the art or science to which it pertains having regard to Romell et al. in view of common general knowledge and Sugimaru et al.

Romell et al. fail to teach that the pipe is coated with a Zn, Zn-Al or Zn-Al-Mg plating layer.

Sugimaru et al. teach Zn coating process for a steel plate (abstract).

Therefore, it would have been obvious to a person skilled in the art to coat the rockbolt of Romell et al. using the Zn coating process taught by Sugimaru et al.

Claim 3 does not comply with subsection 87(3) of the *Patent Rules*. The expression "tensile strength of 530-690 N/mm²" broadens the scope of claim 1, which defines "tensile strength of 490-640 N/mm²". Claim 3 must be amended in order to narrow the scope of claim 1, to which it refers.

In view of the foregoing defects, the applicant is requisitioned, under subsection 30(2) of the *Patent Rules*, to amend the application in order to comply with the *Patent Act* and the *Patent Rules* or to provide arguments as to why the application does comply.

Section 29 of the Patent Rules requisition

Under section 29 of the *Patent Rules*, the applicant is requisitioned to provide:

- identification of any prior art cited in respect of the United States Patent and Trademark Office, and European Patent Office applications describing the same invention on behalf of the applicant or on behalf of any other person claiming under an inventor named in the present application, and the patent numbers, if granted, subsequent to the International Search Report under paragraph 29(1)(a) of the *Patent Rules*.

To satisfy this requisition, applicant should provide all the preceding information or documents, or provide in accordance with subsection 29(3) of the *Patent Rules* a statement of reasons why any information or document is not available or known.

Patrick Cyr
Patent Examiner
819-953-1304
2553344A.pc